AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) An electrode structure ~~(10)~~ for attachment to a more extensive measuring structure ~~(11)~~, in order to measure electrical responses from the human body, which electrode structure ~~(10)~~ includes a conductive electrode ~~(1)~~, ~~characterized in that~~ wherein

- the electrode ~~(1)~~ is shaped to be thin in the thickness direction of the electrode structure ~~(10)~~, and
- the electrode structure ~~(10)~~ is equipped with a hole ~~(6)~~ and the electrode ~~(1)~~ is located at the edge of the hole ~~(6)~~, in such a way that its longitudinal axis is essentially parallel to the plane of the measurement subject.

2. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to Claim 1, ~~characterized in that~~ wherein

the electrode ~~(1)~~ is formed from silver/silver-chloride (Ag-AgCl), in order to form electrically stable interfaces between the measurement subject and the measuring electronics.

3. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to Claim 1 or 2, ~~characterized in that~~ wherein

the electrode ~~(1)~~ is ~~thiner~~ thinner than 5 mm and most preferably ~~thiner~~ thinner than 2 mm.

4. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to Claim 1~~, 2, or 3~~, ~~characterized in that~~ wherein

the electrode structure ~~(10)~~ is attached to the measuring structure ~~(11)~~ using a two-part snap-fit mechanism ~~(2, 3)~~.

5. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to ~~any of the above Claims~~ Claim 1, ~~characterized in that~~ wherein

the electrode ~~(1)~~ is connected to the measuring lead ~~(4)~~ with the aid of a wire ~~(5)~~ of pure silver (Ag).

6. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to ~~an of the above Claims~~ Claim 1, ~~characterized in that~~ wherein

the electrode structure ~~(10)~~ is equipped with a hole ~~(6)~~ and the electrode ~~(1)~~ is located at the edge of the hole ~~(6)~~, and that the diameter of the hole ~~(6)~~ is at least 2 mm, most preferably at least 4 mm.

7. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to ~~any of the above Claims~~ Claim 1, ~~characterized in that~~ wherein

the electrode ~~(1)~~ is cylindrical and the longitudinal axis of the electrode ~~(1)~~ is essentially parallel to the plane of the measurement subject.

8. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to ~~any of the above Claims~~ Claim 1, ~~characterized in that~~ wherein

the electrode structure ~~(10)~~ is formed of body part ~~(2)~~, in which a curved opening is formed, and a locking part ~~(3)~~, which locks into the curved opening in the body part ~~(2)~~.

9. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to ~~any of the above Claims~~ Claim 1, ~~characterized in that~~ wherein

the electrode ~~(1)~~ is of a small size, so that a cross-section along any plane whatever of the electrode ~~(1)~~ has a surface area of less than 15 mm^2, most preferably of less than 4 mm^2.

10. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to ~~any of the above Claims~~ Claim 1, ~~characterized in that~~ wherein

the electrode ~~(1)~~ is manufactured by sintering from a silver/silver-chloride mass (Ag-AgCl).

11. (Currently Amended) ~~An~~ The electrode structure ~~(10)~~ according to ~~any of the above Claims~~ Claim 1, ~~characterized in that~~ wherein

the structure is thinner than 5 mm, most preferably thinner than 2 mm.

12. (Currently Amended) A measuring cap ~~(11)~~ for measuring electrical responses from the human body, which measuring cap includes one or more electrode structures ~~(10)~~ and electrical leads ~~(4)~~ connected to them for transmitting the measurement results to ~~the~~ measuring equipment, ~~characterized in that~~ wherein

the electrode structures ~~(10)~~ are according to ~~any~~ Claims 1 ~~10, or to a combination of them~~.

13. (Currently Amended) ~~A~~ The measuring cap ~~(11)~~ according to Claim 12, ~~characterized in that~~ wherein

the measuring leads are wound into a tight, preferably spiral bundle, in order to reduce interference.

14. (Currently Amended) ~~A~~ The measuring cap ~~(11)~~ according to Claim 12 ~~or 13~~, ~~characterized in that~~ wherein

the earth and reference electrode leads are wound tightly to each other, in order to reduce interference.

15. (Currently Amended) ~~A~~ The measuring cap ~~(11)~~ according to ~~any of the above Claims~~ Claim 12 ~~14~~, ~~characterized in that~~ wherein

the measuring leads are run from the electrodes towards the front of the cap, in order to reduce interference.

Claim 16 (Canceled)